REMARKS

Claim Status

Claim 1 is amended to specify that the polyphosphate in the composition is the sole anti-calculus agent, i.e., composition does not contain any other anti-calculus or anti-tartar agent. The limitation that the composition does not contain a synthetic linear polymeric polycarboxylate salt is cancelled. Such linear polymeric polycarboxylate salts are tartar control agents and would thus not be present in the claimed compositions. Support for the amendment that the polyphosphate is the sole anti-calculus agent may be found in the disclosure which states that additional anti-calculus agents are optional. It is submitted that such disclosure supplies sufficient written description support for excluding additional anti-calculus agents from the claimed compositions. Support for the proposition that claims can be properly amended to exclude a particular genus or species within such a genus can be found in § 2173.05(i) in the MPEP which states:

> *...there is nothing inherently ambiguous or uncertain about a negative limitation. So long as the boundaries of the patent protection sought are set forth definitely, albeit negatively, the claim complies with the requirements of 35 U.S.C. 112, second paragraph.*
>
> *If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. See In re Johnson, 558 F.2d 1008, 1019 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."... Note that a lack of literal basis in the specification for a negative limitation may not be sufficient to establish a prima facie case for lack of descriptive support.*

The *Johnson* court held that a disclosure of a genus and examples of representative species is sufficient to support a negative limitation in the claims in the absence of the limitation in the specification.

Claim 10 is amended to delete anti-calculus or tartar control agents among the additional materials that may be contained in the present composition to be consistent with the amendment to Claim 1, which recites that polyphosphate is the sole anti-calculus agent.

It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

Claims 1 to 12 remain pending in the application. No additional claims fee is believed to be due.

New Matter Rejection (under 35 U.S.C. § 112, first paragraph)

It is asserted that the previously presented claim amendment to exclude a synthetic linear polycarboxylate salt from the composition is not specifically supported in the Specification as originally filed, and thus the claims are rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement.

Applicants respectfully traverse this rejection and submit that the recitation in the instant application of anti-calculus agents as optional components provides sufficient written description support for excluding synthetic linear polycarboxylate salt, which is a species within the genus of anti-calculus agents. Indeed the specific examples provided in the present Specification are polyacrylates and in particular, copolymers of maleic anhydride or acid and methyl vinyl ether (e.g., Gantrez), the very same examples disclosed by Gaffar in US 4,627,977 and US 5,094,844 and admitted to have been disclosed as anti-calculus agents, although not necessarily as agents to inhibit enzymatic hydrolysis of polyphosphates. See Columns 2-3 of US 4,627,977 and Columns 1-2 and Example 1 of US 5,094,844. Further, the present Specification incorporates by reference the disclosure of Gaffar (US 4,627,977) and thus provides support for the synthetic linear polycarboxylate salts disclosed therein.

It is respectfully submitted that there is sufficient support for excluding synthetic linear polycarboxylate salt from the present claimed compositions, and that no new matter is introduced with the amendments to the claims with such exclusion in accordance with *Johnson,* which found that claims excluding two species of a genus are "disclosed in the manner provided by the first paragraph of section 112", since such species were disclosed in the original application. The CCPA stated in *Johnson,*

> *Here, as we hold on the facts of this case, the "written description" in the 1963 specification supported the claims in the absence of the limitation, and that specification, having described the whole, necessarily described the part remaining. The facts of the prosecution are properly presented and relied on,*

under these circumstances, to indicate that appellants are merely excising the invention of another, to which they are not entitled, and are not creating an "artificial subgenus" or claiming "new matter."

However, Claim 1 has been amended to recite that polyphosphate is the sole anti-calculus agent and thus, there is no additional anti-calculus agent in the composition. Therefore, the limitation excluding the synthetic linear polycarboxylate salt which is an anticalculus agent has been deleted and the rejection of the claims with such limitation under 35 U.S.C. § 112, first paragraph is rendered moot.

Claims Rejection Under 35 U.S.C. §103(a)

It is stated in the Office Action that Claims 1-12 are rejected under 35 USC §103(a) as being unpatentable over Gaffar et al. (US 5,094,844) in view of Crisanti et al. (US 4,902,497).

Applicants respectfully traverse the Examiner's rejection of the claims under 35 USC 103(a) and submit that Claims 1-12 as now presented are distinct and unobvious from the cited art.

As now claimed, the present single-phase compositions are distinct from the Gaffar compositions which require the presence of from 0.05% to 4% of a synthetic anionic polyvinyl phosphonate to inhibit enzymatic hydrolysis of the polyphosphate salt in saliva. Gaffar teaches that such synthetic anionic polyvinyl phosphonates are anti-calculus agents. The present claimed compositions contain polyphosphate as the sole anti-calculus agent and thus, exclude additional anticalculus agents such as Gaffar's synthetic anionic polyvinyl phosphonate. Instead the present compositions are formulated with a limited water content to minimize the hydrolysis of the polyphosphate thereby maintaining the required level of polyphosphate in the composition.

Further, there is no disclosure whatsoever in Gaffar relating to the use of stannous as anti-gingivitis and anti-plaque agent. In fact, Gaffar's compositions would only have stannous if stannous fluoride were selected as the fluoride source. There is no disclosure to use a stannous salt to supply stannous ions much less to use a stannous salt other than stannous fluoride or stannous monofluorophosphate as contemplated in the present compositions. In fact, Gaffar specifically teaches to avoid metal salts that would complex with the active components. (See Column 7, lines 6-9.) Therefore, a stannous salt, being

a metal salt that would complex with e.g., a polyphosphate would be avoided in Gaffar's compositions.

Still further, there is no specific teaching in Gaffar to limit the water content to no more than 20% to minimize the hydrolysis of the polyphosphate. Indeed, Gaffar indicates that substantially liquid compositions such as a mouthwash or a rinse up to about 99.9% of a water-alcohol mixture are highly preferred. Gaffar also exemplifies a dentifrice composition (Example 3D) comprising sodium hexametaphosphate and 20.12% added water plus additional water from the glycerine humectant and sodium lauryl sulfate and sodium hydroxide solutions. Gaffar recognizes that polyphosphates are subject to enzymatic hydrolysis and only teaches to use a synthetic anionic polyvinyl phosphonate to inhibit such hydrolysis.

It is asserted that Gaffar teaches that "other anti-calculus agents" may be incorporated in the composition and that it would have been obvious to use a stannous compound such as taught by the secondary reference Crisanti et al. as such "other anti-calculus agent" in Gaffar's composition and thus arrive at the present invention. Crisanti indeed teaches the use of stannous compounds such as stannous chloride and stannous gluconate complexed with certain acids or alcohols as anti-calculus agents and that the complexed stannous compound provides sustained levels over extended periods of time, and thus improved anti-calculus activity. However, as taught by Gaffar, significant amounts of metal salts and materials are to be avoided. This teaches away from including metal salts such as Crisanti's stannous salts in Gaffar's compositions.

Even assuming that there were motivation to include Crisanti's stannous compounds into Gaffar's composition, Applicants respectfully submit that such combination would still not arrive at the presently claimed compositions. The combination would still require the synthetic anionic polyvinyl phosphonate required by Gaffar to inhibit enzymatic hydrolysis of the polyphosphate component. The present claimed compositions include a polyphosphate as the sole anti-calculus agent, and thus would not include any additional anti-calculus agent such as a synthetic anionic polyvinyl phosphonate. Instead, the present compositions are formulated with a limited total water content of not more than 20% to minimize polyphosphate hydrolysis in order to maintain a sufficient level of polyphosphate in the composition to inhibit stannous-derived staining and to provide anti-calculus activity. Neither Gaffar or Crisanti has any specific teaching

or suggestion with respect to limiting the water content of the compositions to avoid polyphosphate hydrolysis. Gaffar's exemplification of sodium hexametaphosphate, in a dentifrice composition containing more than 20% added water teaches away from the present claimed composition, which contains significantly less water and does not contain Gaffar's synthetic synthetic anionic polyvinyl phosphonate.

It is respectfully submitted that the claimed invention is novel and unobvious over Gaffar in view of Crisanti and the rejection under 35 USC 103(a) should be withdrawn.

Obviousness-Type Double Patenting Rejection

Claims 1-12 have been rejected under the judicially created doctrine of obviousness-type double patenting over Claims 1-8 of US Patent No. 6,696,045 in view of Gaffar et al. and over Claims 1-9 of US Patent No. 6,667,027.

With respect to US Patent No. 6,667,027, Applicants confirm that the present application is a divisional thereof, filed with composition claims restricted out of the parent case. The restriction requirement was issued in the Office Action dated November 07, 2002 on US Application No. 10/039,620, filed October 24, 2001. Election was required between Group I claims directed to compositions (product) and Group II method claims (process of use). It was asserted that the compositions and the process of use are distinct inventions since the compositions "could be used for purposes other than for the purpose of reducing stannous staining". Applicants elected to prosecute Group II claims, and the application was allowed as US 6,667,027 with method claims for reducing stannous staining. Please find attached a copy of the November '02 Office Action, as requested.

As the present claims were filed separately in response to a restriction requirement, the double-patenting rejection over US 6,667,027 should be withdrawn.

The obviousness-type double-patenting rejection over US Patent No. 6,696,045 in view of Gaffar is respectfully traversed because the primary reference is not available as prior art against the present application under 35 USC §103(c).

The present application has a priority date earlier than the priority date or filing date of US 6,696,045. This means US 6,696,045 only qualifies as prior art under 35 USC §102(e). Furthermore, the present application and US 6,696,045 were, at the time the claimed invention was made, owned by, or subject to an obligation of assignment to, The Procter & Gamble Company.

35 U.S.C. §103(c) applies to US patent applications filed after November 29, 1999. Since the current application has a filing date after November 29, 1999 (filed on October 27, 2003), Applicants submit that US Patent No. 6,696,045 is not available as a reference under 35 U.S.C. §103(c).

CONCLUSION

Applicants have made an earnest effort to place their application in proper form and to distinguish the invention as now claimed from the applied references. In view of the foregoing, reconsideration of this application, entry of the amendments presented, withdrawal of the claims rejection under 35 USC 103(a) and 35 U.S.C. § 112, first paragraph, withdrawal of the non-statutory double-patenting rejection and allowance of Claims 1 to 12 are respectfully requested.

The Examiner is respectfully invited to telephone the undersigned representative if he believes an interview might be useful to advance prosecution of this case.

Respectfully submitted,
THE PROCTER & GAMBLE COMPANY,

By 

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August 22, 2005
Customer No. 27752

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,620	10/24/2001	William Michael Glandorf	6373R2RD	3530

27752 7590 11/07/2002

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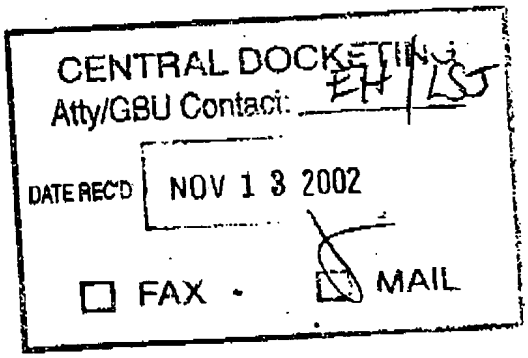
EXAMINER	
ROSE, SHEP K	

ART UNIT	PAPER NUMBER
1614	

DATE MAILED: 11/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.



PTO-90C (Rev. 07-01)

Office Action Summary	Application No. 10 037620	Applicant(s) [illegible]
	Examiner [illegible]	Group Art Unit [illegible]

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☐ Responsive to communication(s) filed on ______.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) [illegible] is/are pending in the application.

Of the above claim(s) [illegible] is/are withdrawn from consideration.

☐ Claim(s) ______ is/are allowed.

☒ Claim(s) [illegible] is/are rejected.

☐ Claim(s) ______ is/are objected to.

☒ Claim(s) [illegible] are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on ______ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on ______ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) ______.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: ______.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). ______

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other ______

Office Action Summary

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1 to 12, drawn to a single-phase linear polyphosphate stannous dentifrice, classified in class 424, subclass 57.

II. Claims 13 to 24, drawn to methods comprising including linear polyphosphate and stannous in single phase dentifrices for the purpose of reducing stannous staining, classified in class 424, subclass 57.

The inventions are distinct, each from the other because:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the single-phase dentifrice can be combined with another phase to make a dual phase dentifrice, having utility other then for the purpose of reducing stannous staining.

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed could be used for purposes other then for the purpose of reducing stannous staining, for example linear polyphosphates can effect demineralization (See: Westrate et al) of fluoride dentifrice.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Emelyn Hiland on October 28, 2002 a provisional election was made without traverse to prosecute the invention of Group II, claims 13 to 24, ~~claims 13 to 24~~. Applicant in replying to this Office action must make affirmation of this election. Claims ~~13~~ 1 to ~~24~~ 12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 13 to 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted fact that stannous dentifrices expectedly stain teeth taken with Shore or Haefele (details bellows) and one of Prencipe et al, Majeti et al (I-II), or Zahradmik et al. It is prima facie obvious from Shore and Haefele to include (as claimed in line 2 of claim 13) a linear polyphosphate in such a stannuous dentifrice, to expectedly reduce staining.

Shore, U.S. 3004,897 teaches that polyphosphate toothpastes of sodium hexametaphosphate (N=6) and sodium tripolyphosphate prevent and remove teeth discoloring (i.e. staining) tartars deposits on teeth.

Haefele, U.S. 3,934,002 claims 4 and 25, teaches that polyphosphates (n=2 to 30) inhibit stain function on teeth, describing stannous fluoride, sodium fluoride dentifrices (column 11, line 3, column 16, line 25) with disodium tripolyphosphate (column 15, line 43).

Each of Prencipe et al, Majeti et al (I-II) and Zahradnick et al describe stannous dentifrices containing less than 20% water as claimed herein, wherein a stannous salt is added to stannous fluoride. Zahradnik, et al teach less than 10% water (2.5% to 5% in Example) avoids stannous fluoride degradation, which can be stabilized with sparingly soluble stannous salts, according to Majeti et al (I-II), (12.5% water in Examples with stannous chloride dihydrate), and in Prencipe et al (10% and 20% water in Examples with Stannous Chloride).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

Claims 13 to 21, 23, 24 are rejected under 35 U.S.C. 102(b) as being anticipated by each of:

Gaffar et al U.S. 4,627,977;

Amjad (I-II) U.S. 4,842,847 and 4,892,725; and

Miyake et al U.S. 4,913,895; each of which meets the recited step of line 2 of claim 13, of including an encompassed species of a linear polyphosphate in a stannous fluoride single phase, (none of which have another stannous ionsource). These claims require no more than "including" a linear polyphosphate in a stannous dentifrice; and the "stannous" can be provided by stannous fluoride, alone.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13 to 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The sole step of these claims, recited in line 2 of claim 13, is "including" a linear polyphosphate, and "stannous source, in a dentifrice, a mere mixing of the ingredients, which falls short of the stated purposed of the methods, clearly intended to reduce stannous staining of tooth surfaces when applied to the teeth, a step not positively recited and required by any claim.

Claim 22 is rejected ~~under 35 U.S.C. 103(a) as being~~ unpatentable over Shore taken with Prencipe et al, or Norris et al U.S. 2,946,725, each of which includes stannous chloride (or other stannous salt) in a stannous fluoride (or other fluoride) single phase dentifrice and taken in further view of the background fact (the technical problem applicants encountered) that such stannous dentifrices expectedly stain teeth. It would be obvious from Shore to include sodium hexametaphosphate (n=6) to prevent or to remove teeth discoloring stains from teeth, since Shore teaches that sodium hexametaphosphate, (N=6) in toothpaste can prevent and remove teeth discoloring (i.e. staining) deposits on teeth, motivating its selection to solve the stannous tooth staining problem encountered by applicants.

Claim 20 is contains the trademark/trade name Glass H. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe and, accordingly, the identification/description is indefinite.

It is suggested that the claim be changed to the polyphosphate is n-21 and that "Glass H" be deleted.

The following is a statement of reasons for the indication of allowable subject matter: the term "including" in line 2 of claim 13 is drawn to a mere mixing step for making the single phase linear polyphosphate stannous dentifrice, it fails to accomplish the stated purpose of reducing stannous staining of tooth surfaces; "including in the" should be replaced by – applying to teeth a fluoride – to precede "dentifrice" in line 2 of claim 13.

In line 1 of claim 13, "stannous" should be inserted to precede "staining", and in line of claim 13, preceding "dentifrice" insert – fluoride single phase -- after "stannous", there should be inserted – to improve breath, reduce sensitivity, and to provide anti-plaque and antigingivitis benefits, said stannous associated with and causing staining of tooth surfaces –.

In line 2 of claim 13, after "subject" insert – in need thereof –, and; after "composition" insert – consisting essentially of –. (This is seen to excluding components essential to the operability of the prior art relied upon.)

In line 4 of claim 13, after "of" insert -- above about 6 to about 125 -- and delete "about 4 or more".

In line 5 of claim 13, after "anion", insert – effective to provide antiplaque and antigingivitis benefits, to reduce sensitivity, and to improve breathe in a subject in need thereof --.

In line 6 of claim 13, after "of" insert – from at least about 5% – (a page 5, line 20).

In line 7, (actually, preceding line 7) insert:

--d. The fluoride ion source is sodium monofluorophosphate, and mixtures thereof with sodium fluoride, indium fluoride and stannous fluoride --.

In claim 13 line 7, insert – fluoride single phase – to precede "dentifrice".

In claim 13, line 8, insert -- whereby -- after "5:1", and after "delivered" insert -- solely --.

In claim 13, line 9, after "fluoride" insert – which may serve as both the stannous ion and fluoride ion source –, and, preceding "dentifrice" insert – fluoride – single phase --.

This set of claims is directed to a single phase fluoride dentifrice, unlike the claims of the parent (U.S. 6,350,436) and the grandparent, (U.S. 5,939,052), both of which are to dual phase dentifrices, keeping the fluoride in one phase apart from the linear polyphosphate in a second or dual phase of the dentifrice, in order to aroid the reaction of linear polyphosphate with fluoride ions which produces monoflurophosphate ions, and thereby compromising the ability to provide ionic fluoride and polyphosphate to oral surfaces.

Practically the entire specification, as well as all of the examples herein, is directed to the dual phase dentifrices of the parent and grandparent patent applications. There is next to nothing said herein with respect to the claimed single-phase dentifrice for reducing stannous staining.

What precisely do applicants teach concerning the claimed single-phase stannous dentifrices?

Page 3 and 4 of the specification refers to a control product "Crest Gum Care" as a stannous product (one causing a typical amount of stannous staining) but fails to inform the reader of its precise composition (?), or even whether or not it is single phase (?) or dual phase, (?) whether it contains stannous (?) or other fluoride (?) and or other stannous salts (?) and precisely ~~waste~~ what is its aqueous water content ?

Page 6, lines 5 to 23 informs the reader not only that "If a polyphosphate having a chain length of about 4 or more is in the same phase as the fluoride ion source is sodium monofluorophosphate."

~~I~~In this single phase dentifrice, both the fluoride ion source and the polyphosphate are necessarily in the same phase.

Moreover, the reader is further informed that ... " stannous fluoride is the most preferred soluble fluoride ion source. This ingredient may serve as both the stannous ion and fluoride ion source.

Assuming that claim 13 is not referring to staining of the (unseen) insides of toothpaste tubes, the term "including" in line 2 of claim 13 means merely that claims 13 to 21, 23 and 24 mean no more than mixing in both a linear polyphosphate and a stannous ion (i.e. stannous fluoride by itself) into a dentifrice having 20% water, or less.

The statement in dependent claim 22 that wherein the stannous ion is provided from stannous chloride dihydrate is not a positive limitation or requirement for this essential component, for any one of claims 13 to 21, 23 and 24 wherein the stannous ion (as noted above) can be provided ~~by~~ from stannous fluoride, (by itself).

The technical problem presented by applicant in elected claims 13 to 24 is to reduce stannous staining of teeth, by including a linear polyphosphate in a single-phase fluoride dentifrice, in order to get staining reduction below that caused by Crest Gum Care, a stannous product associated with tooth staining.

From the polyphosphate tooth stain-treating teaching of the Shore and Haefele references, it was apparent that one of ordinary skill in the art would have had reasonable expectation of success in producing the claimed invention. Therefore the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shep Rose whose telephone number is (703) 308-4609. The examiner can normally be reached on Monday, Tuesday and Thursday from 7:30 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marianne Seidel can be reached on (703) 308-4725. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4556 for regular communications and (703) 308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Rose/LR
November 4, 2002

SHEP K. ROSE
PRIMARY EXAMINER

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